IN THE SPECIFICATION

Please enter the following amended paragraphs in the Specification.

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To overcome this, a buffer can be added to the band-gap circuit as is shown in Figure 2. In essence the same circuit as in Figure 1, the circuitry associated with transistors 201 through 207 and resistors 211 and 212 provides the same functionality as the circuitry in Figure 1. The current source shown at 214 is implemented in this illustration as a metal oxide/silicon field effect transistor (MOSFET) current source. PNP transistors 203 and 204 share a common base which is shunted to the collector of transistor 203. NPN transistors 201 and 202 also share a common base that connects to VBG, the band-gap voltage. Transistor 205 has a base connected to the common collectors of transistors 202 and 204. The collector of transistor 205 is connected to the drain of transistor 206 which shares a common gate with transistor 207. The common gate of transistors 206 and 207 is shunted to the drain-collector connection between transistors 205 and 206. In the implementation illustrated in Figure 2, m symbolizes the relationship in current flow between transistor 201 and transistor 202. Because their bases are common, the ratio of current flows is constant. The base-emitter voltage of 201 and 202 differs by the voltage across resistor 211.

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Page 13, Line 1 – line 14:

The embodiment of the present invention discussed here enables a low supply voltage Vcc, as is shown in Figure 3, by the addition of device 320. Device 320 is accompanied by the addition of transistor 308, transistor 310 and current source 313. Current source 313 can be, in many implementations of this embodiment of the present invention, functionally implemented by a metal oxide/silicon field effect transistor (MOSFET) current source with its source connected to Vcc. NPN transistor 309 is connected as an emitter follower for the emitters of transistors 203, 204 and 205. The emitter of transistor 309 is connected via device 320 to the base of PNP transistor 310. It is transistor 310 that provides the final buffering in this implementation. The collector-emitter voltage, VCE, of transistor 310 is the band-gap voltage in

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C3 this embodiment. In this configuration, Vcc can be very low for a buffered band-gap circuit. The minimum VCC here is:

Page 13, Line 21 – Page 14, line 4:

C4 Note that, in this embodiment, device 320 is necessary to pull the voltage back up and prevent saturation of transistors 201 and 202. Device 320 can be implemented, in various embodiments, as a resistor or as a transistor with less than 1 VBE. <u>In the illustration of Figure 3, device 320 is disposed between buffer 309 and the reference circuit.</u> It is important to note that transistors 203, 204, and 205 can be implemented as either bipolar transistors or MOS transistors.

Page 14, Line 5 – line 18:

C5 Device 320, in this embodiment, can be implemented in a number of ways. It is likely that device 320 will be found to be functional when implemented as a resistor or as a fixed gain transistor. Without regard to the actual implementation, the function of device 320 remains to be the reduction in necessary supply voltage in order to produce a functional buffer across the operating range of the band-gap reference circuit. <u>In the implementation of device 320 illustrated in Figure 3,</u> the combination of device 320 and <u>buffering</u> transistor 309 acts to pull the VBE of transistor 310 towards VCC which means that the buffering that is done by transistor 310 can be accomplished at a lower VCC. In this fashion, the buffering necessary to achieve a low impedance is enabled yet the normally high VCC attendant to the implementation of buffering is obviated. A low voltage, low Z, band-gap reference circuit is thus embodied.